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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/664,395

09/18/2003

Torrey M. Bievenour

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08/30/2006

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EXAMINER

LAVARIAS, ARNEL C

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,395

Applicant(s)

BIEVENOUR ET AL.

Examiner

Arnel C. Lavarias

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10-24,26-28,30-39 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-8,10,11,13-24,26-28,30-39 and 41 is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendments to Claims 1, 23, 26-27, 33-34, 41 in the submission dated 7/12/06 are acknowledged and accepted.
2. The cancellation of Claims 9, 29, 40 in the submission dated 7/12/06 is acknowledged and accepted.

Response to Arguments

3. The Applicants' arguments, see in particular Page 9 of the response, filed 7/12/06, with respect to the rejections of Claims 1-2, 4-6, 8, 11-12, 14-18, 23-24, 26-28, 31, 40-41, have been fully considered and are persuasive. The rejections of Claims 1-2, 4-6, 8, 11-12, 14-18, 23-24, 26-28, 31, 40-41 in Sections 11-17 of the Office Action dated 4/12/06 have been withdrawn.
4. It is additionally noted that Applicants did not provide any argument with respect to the rejection of Claim 12 under 35 U.S.C. 112 1st paragraph in Section 9 of the Office Action dated 4/12/06.
5. Claim 12 is now rejected as follows.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 12 recites the limitation that the optical activity of the optical active device (which comprises an optically active liquid of randomly oriented and positioned molecules) is electrically controlled. However, other than liquid crystal materials, the Examiner is unaware of any other liquid materials, and particularly any other liquid materials of randomly oriented and positioned molecules, that exhibit an electrically controlled optical activity. In addition, Applicants have not disclosed any such exemplary materials. Page 9 of Applicants' disclosure specifically discloses that an alternative to the optically active liquid substance is a crystal (i.e. a solid) whose optical activity is dependent on an applied electric field (See Page 9, lines 1-6 of Applicants' disclosure).

Allowable Subject Matter

8. Claims 1-2, 4-8, 10-11, 13-24, 26-28, 30-39, 41 are allowed.
9. The following is a statement of reasons for the indication of allowable subject matter:
- Claim 1 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest an optically active color filter, as generally

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set forth in Claim 1, the filter including, in combination with the features recited in Claim 1, an adjustable thickness container for holding the optically active liquid, wherein the thickness of the optically active device is changed by adjusting the container. Claims 2, 4-6, 8, 10-11, 13-18, 33-34 are dependent on Claim 1, and hence are allowable for at least the same reasons Claim 1 is allowable.

Claim 7 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest an optically active color filter, as generally set forth in Claim 7, the filter including, in combination with the features recited in Claim 7, the circular-shaped rotatable polarizer being circular shaped and having a cutout, wherein the first rotatable polarizer is disposed offset from a path of the rotated polarized light from the optically active device, and further wherein the radius of the first rotatable polarizer extends beyond the light path.

Claim 19 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest an optically active color filter, as generally set forth in Claim 19, the filter including, in combination with the features recited in Claim 19, a linear polarizing beamsplitter for polarizing and splitting light from a light source into a first polarized light and a second polarized light; an optically active means for rotating the first and second polarized light from the beamsplitter; a first adjustable polarizer for selecting a desired first color from the rotated first polarized light from the optically active means; and a second adjustable polarizer for selecting a desired second color from the rotated second polarized light from the optically active means.

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Claims 20-22, 35-39 are dependent on Claim 19, and hence are allowable for at least the same reasons that Claim 19 is allowable.

Claim 23 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a lighting effects device, as generally set forth in Claim 23, the device including, in combination with the features recited in Claim 23, the optically active device further comprising a multiplicity of removable layers of optically active liquid. Claim 24 is dependent on Claim 23, and hence is allowable for at least the same reasons Claim 23 is allowable.

Claim 26 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest an optically active color filter, as generally set forth in Claim 26, the filter including, in combination with the features in Claim 26, the thickness of the optically active liquid not being uniform such that all polarized light from the light source travels the same distance through the optically active liquid.

Claim 27 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a method for producing colored light, as generally set forth in Claim 27, the method including, in combination with the features recited in Claim 27, the step of adjusting the thickness of the optically active liquid.

Claims 28, 30-31 are dependent on Claim 27, and hence are allowable for at least the same reasons Claim 27 is allowable.

Claim 32 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach an optically active color filter, as generally set forth in Claim

32, the color filter including, in combination with the features recited in Claim 32, the color from the first rotatable polarizer having only one peak wavelength in the visible light spectrum and further, wherein the peak wavelength stays in the visible light spectrum for at least 90 degrees of rotation of the first rotatable polarizer.

Claim 41 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest an apparatus for projecting colored images, as generally set forth in Claim 41, the apparatus including, in combination with the features recited in Claim 41, an adjustable thickness container for holding the optically active liquid, wherein the thickness of the optically active device is changed by adjusting the container.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

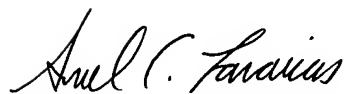
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Arnel C. Lavarias
Primary Examiner
Group Art Unit 2872
8/23/06